Amendments to the Specification:

Please replace the paragraph starting at page 2, line 5, with the following rewritten paragraph:

According to one aspect of the present invention, there is provided a control system for supplying a control signal (c) to a controlled apparatus (P), the system comprising: ~~a comparison means for receiving a required signal, and an output unit operable to supply a control signal to a plant under control, the control signal being the error signal multiplied by a gain signal, wherein the gain value is chosen in dependence upon the error signal value.~~an error generation means (3) operable to produce an error signal (e) from a feedback value (F) relating to a measured operating parameter of a controlled apparatus (1, P), and a required value (R) relating to a desired operating parameter value of the controlled apparatus (1, P); and a controller (4) operable to receive the error signal (e) and a gain signal (k), and to output a control signal (c) in dependence upon the values thereof, wherein a gain selection means (6) is provided, which gain selection means is operable to receive the error signal (e) and to output a gain signal (k) to the controller (4) in dependence upon the value of the error signal (e).

Please replace the paragraph starting at page 5, line 8, with the following rewritten paragraph:

In Figure 6, the TGT signal is received and compared with a reference signal TGT limit. The comparison produces an error signal (error) which is output from an adder 25. The error signal e is supplied to a multiplier 22. The multiplier 22 serves to ~~multiple~~multiply the error signal e by a compensation signal Q in order to compensate for transient disturbances, as described above. The modified error signal eQ is supplied to a filter that removes noise before the signal is passed to the next part of the system.

Please replace the paragraph starting at page 6, line 17, with the following rewritten paragraph:

Figure ~~7~~6 illustrates a generalized method embodying the present invention, in which a feedback signal is received, and processed using the loop gain control of the present invention. The control signal is then supplied to the plant under control.